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PATENT APPLICATION

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IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Ira Goldstein et al.

Confirmation No.: 8828

Application No.: 10/820,630

Examiner: Nicholas C. Pachol

Filing Date: April 7, 2004

Group Art Unit: 2625

Title: Digital Documents, Apparatus, Methods and Software Relating to Associating an Identity of Paper Printed with Digital Pattern with Equivalent Digital Documents

Mail Stop Appeal Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 05/19/2010.

☒ The fee for filing this Appeal Brief is \$540.00 (37 CFR 41.20).

☐ No Additional Fee Required.

**(complete (a) or (b) as applicable)**

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month  
\$130

☐ 2nd Month  
\$490

☐ 3rd Month  
\$1110

☐ 4th Month  
\$1730

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 540 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

Ira Goldstein et al.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Patent Application of

Ira Goldstein et al.

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For: Digital Documents, Apparatus, Methods  
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**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal Brief under Rule 41.37 appealing the decision of the Primary Examiner dated March 22, 2010 (the “final Office Action”). Each of the topics required by Rule 41.37 is presented herewith and is labeled appropriately.

**I. Real Party in Interest**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 11445 Compaq Center Dr. W., Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

## **II. Related Appeals and Interferences**

There are no appeals or interferences related to the present application of which the Appellant is aware.

### **III. Status of Claims**

Under the imposition of a previous Restriction Requirement, claims 25-30, 34-51, 53-56 and 59-71 were withdrawn. These claims have since been canceled without prejudice or disclaimer. Further original claims 10, 11, 17, 20, 22, 23, 31-33, 57, 58 and 71 have been cancelled without prejudice or disclaimer.

Claims 1-9, 12-16, 18, 19, 21, 24, 52, and 72-76 are pending in the application and stand finally rejected. Accordingly, Appellant appeals from the final rejection of claims 1-9, 12-16, 19, 21, 24, 52, and 72-76, which claims are presented in the Appendix.

**IV. Status of Amendments**

No amendments have been filed subsequent to the final Office Action of March 22, 2010, from which Appellant takes this appeal.

### **V. Summary of Claimed Subject Matter**

By way of background and without limitation to the claims, Appellant's specification describes a system 100 for printing a document having content that is visible on a sheet of pre-printed Anoto digital paper, or Anoto-type patterned paper, which has pattern that absorbs light at non-visible wavelengths (e.g. at an infra-red wavelength). The dot pattern, or position-determining pattern, enables the position of the tip of a digital pen, such as pen 20, to be determined. The system 100 comprises a workstation 101 including a personal computer (PC) 102 which is connected to a local printer 110. The PC 102 may also be connected to the Internet 112. The workstation 102 includes a user interface including a screen 108, a keyboard 104 and a mouse 106. The PC 102 has a processor 102a, a memory 102b, and I/O software devices 102c by means of which the processor communicates with the screen 108, the keyboard 104 and the mouse 106, and a communications port 107 by means of which it communicates with the Internet 112 or a local network such as a LAN 109 having peripheral devices and/or other computers (e.g. PCs) 109a. (*Appellant's specification, pg. 32, ll. 5-20, and Fig. 3*).

The printer 110 comprises a pattern scanner 113 arranged to scan a sheet of Anoto digital paper as it passes through the printer 110. The pattern scanner 113 can be located, for example, on the paper feeder of the printer 110, and the Anoto digital paper is scanned as it is fed into the printer 110. Alternatively, the pattern scanner 113 can be located on the paper outlet from the printer 110 and the Anoto digital paper is scanned as it leaves the printer 110. A further alternative is that the pattern scanner 113 is located within the housing of the printer 110. For example, the pattern scanner 113 may be located at the region of a printing head of the printer. As paper passes the pattern scanner 113, the Anoto-type dot pattern (referred to as "pattern") on the paper is scanned and analysed and a location of the region of scanned

pattern within a pattern space can be determined. (*Appellant's specification*, pg. 33, ll. 4-15, and Fig. 3).

Turning now to the claims, Appellant's independent claims at issue in this appeal recite the following subject matter.

Claim 1 recites:

A method of associating in computer memory (102b, 105a, 372, 414, 428, 502) (i) a digital electronic version of printed human-discernible content (105e, 161, 362, 402, 445, 447, 449, 516) of a printed document (105b) comprising a sheet (10, 105c) having a machine-readable pattern (12, 165, 364, 404, 442, 484, 518) adapted to enable the position of a digital pattern reading device (20) to be determined and said human-discernible content (105e, 161, 362, 402, 445, 447, 449, 516) with (ii) the identity of a sheet (10, 105c) upon which the content (105e, 161, 362, 402, 445, 447, 449, 516) is printed, the method comprising (*Appellant's specification*, p. 32, l. 15 - p. 33, l. 15):

printing the content (105e, 161, 362, 402, 445, 447, 449, 516) onto a sheet (10, 105c) using a second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508), said sheet (10, 105c) comprising a pre-patterned sheet that has been pre-printed by a first printer (186, 422, 140) with said pattern (12, 165, 364, 404, 442, 484, 518) (*Appellant's specification*, p. 38, l. 14 - p. 40, l. 7);

in which said first printer (186, 422, 140) has a higher print resolution than the second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) (*Appellant's specification*, p. 37, ll. 23-32);

transferring a machine-readable identity code (152, 152', 152'', 406, 162, 169) between said second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) and said sheet (10, 105c) at around the time of printing said content (105e, 161, 362, 402, 445, 447, 449, 516) (*Appellant's specification*, p. 41, l. 20 - p. 42, l. 2; p. 44, ll. 9-15; p. 44, l. 31 - p. 45, l. 18); and

storing a correlation between said identity code (152, 152', 152'', 406, 162, 169) and said digital electronic version in computer memory (102b, 105a, 372, 414, 428, 502) (*Appellant's specification*, p. 38, l. 31 - p. 39, l. 2).

Claim 12 recites:

A method of associating in computer memory (102b, 105a, 372, 414, 428, 502) a digital electronic version of printed human discernible content (105e, 161, 362, 402, 445, 447, 449, 516) of a printed document with an identity code (152, 152', 152'', 406, 162, 169) adapted to identify said



document, the method comprising (*Appellant's specification*, p. 32, l. 15 - p. 33, l. 15):

using a plurality of pages (10, 105c) of pre-patterned digital paper (10, 105c) that have been pre-printed by a first printer (186, 422, 140) with a position-determining pattern (12, 165, 364, 404, 442, 484, 518), said pattern (12, 165, 364, 404, 442, 484, 518) being adapted to enable a digital pen (20, 366, 408) to acquire information from said pattern (12, 165, 364, 404, 442, 484, 518) to enable the position of said pen (20, 366, 408) on said pattern (12, 165, 364, 404, 442, 484, 518) to be determined (*Appellant's specification*, p. 2, ll. 16-28; p. 36, ll. 22-31; p. 44, ll. 9-15);

printing said content (105e, 161, 362, 402, 445, 447, 449, 516) on said digital paper (10, 105c) using a second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) (*Appellant's specification*, p. 38, l. 14 - p. 40, l. 7);

using said second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) to convey an identity code (152, 152', 152'', 406, 162, 169) to or from the paper (10, 105c) (*Appellant's specification*, p. 41, l. 20 - p. 42, l. 2; p. 44, ll. 9-15; p. 44, l. 31 - p. 45, l. 18); and

in which said identity code (152, 152', 152'', 406, 162, 169) is a user-specific identity code (152, 152', 152'', 406, 162, 169) and in which, upon recognition of said user-specific identity code (152, 152', 152'', 406, 162, 169), said second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) is caused to print user-specific content (105e, 161, 362, 402, 445, 447, 449, 516) along with said human discernible content (105e, 161, 362, 402, 445, 447, 449, 516) onto said pre-printed digital paper (10, 105c) (*Appellant's specification*, p. 57, l. 34 - p. 58, l. 8);

associating in computer memory (102b, 105a, 372, 414, 428, 502), using said code transferred (152, 152', 152'', 406, 162, 169), at the time of printing said content (105e, 161, 362, 402, 445, 447, 449, 516) onto said pre-patterned paper (10, 105c), a digital electronic version of said content (105e, 161, 362, 402, 445, 447, 449, 516) with the identity code (152, 152', 152'', 406, 162, 169) for the particular sheet of digital paper (10, 105c) upon which said content (105e, 161, 362, 402, 445, 447, 449, 516) is printed (*Appellant's specification*, p. 32, l. 15 - p. 33).

Claim 52 recites:

A method of combining pen strokes made with a digital pen (20, 366, 408) upon a digital sheet (10, 105c) having pen position-determining pattern (12, 165, 364, 404, 442, 484, 518) printed upon it and human-discernible content (105e, 161, 362, 402, 445, 447, 449, 516) printed upon it comprising (*Appellant's specification*, p. 49, ll. 1-12)

printing said sheet (10, 105c) with said pattern (12, 165, 364, 404, 442, 484, 518) in a pre-patterning operation with a first printer (186, 422, 140) to create a pre-patterned sheet (*Appellant's specification*, p. 32, l. 15 - p. 33, l. 15);

subsequently printing said content (105e, 161, 362, 402, 445, 447, 449, 516) onto said pre-patterned sheet (10, 105c) using a second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) to create a content-printed digital sheet (*Appellant's specification*, p. 32, l. 15 - p. 33, l. 15);

transferring an identity code (152, 152', 152'', 406, 162, 169) between said second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) and said sheet (10, 105c) to enable the identity of said sheet (10, 105c) to be established in a subsequent pen-on-sheet writing operation, the transfer of said identity code (152, 152', 152'', 406, 162, 169) occurring in the same time frame as printing said content (105e, 161, 362, 402, 445, 447, 449, 516) onto said sheet (10, 105c) (*Appellant's specification*, p. 41, l. 20 - p. 42, l. 2; p. 44, ll. 9-15; p. 44, l. 31 - p. 45, l. 18);

in which said identity code (152, 152', 152'', 406, 162, 169) corresponds to a predetermined set of human-discernible content (105e, 161, 362, 402, 445, 447, 449, 516) and in which, upon recognition of said identity code (152, 152', 152'', 406, 162, 169), said second printer (105d, 110, 142, 184, 300, 340, 424, 480, 508) is caused to print user-specific content (105e, 161, 362, 402, 445, 447, 449, 516) along with said predetermined set of human-discernible content (105e, 161, 362, 402, 445, 447, 449, 516) onto said pre-printed digital paper (10, 105c) (*Appellant's specification*, p. 57, l. 34 - p. 58, l. 8);

associating in computer memory (102b, 105a, 372, 414, 428, 502) a link between said identity code (152, 152', 152'', 406, 162, 169) and an electronic version of said content (105e, 161, 362, 402, 445, 447, 449, 516) that was printed on said sheet (10, 105c) (*Appellant's specification*, p. 32, l. 15 - p. 33);

using a digital pen (20, 366, 408) to make pen strokes (Fig. 15, Step 444) on said content-printed sheet (10, 105c) (*Appellant's specification*, p. 53, ll. 19-20);

conveying pen-acquired pen-position data, relating to the position of said pen (20, 366, 408) in said pattern (12, 165, 364, 404, 442, 484, 518) to a processor (102a, 370, 413, 501) (*Appellant's specification*, p. 32, l. 15 - p. 33; p. 53, ll. 22-27);

using the digital pen (20, 366, 408) to acquire said identity code (152, 152', 152'', 406, 162, 169) from said content-printed sheet (10, 105c) (*Appellant's specification*, p. 44, ll. 9-15);

the processor (102a, 370, 413, 501) using the pen-acquired identity code, the pen (20, 366, 408) acquired pen-position data, and the link between said identity code (152, 152', 152'', 406, 162, 169) and said electronic version of said content to combine said pen strokes with said content (152, 152', 152'', 406, 162, 169) (*Appellant's specification*, p. 51, ll. 16-27).

## **VI. Grounds of Rejection to be Reviewed on Appeal**

The final Office Action raised the following grounds of rejection.

(1) Claims 1, 3-5, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. Patent Application No. 2003/0122746 to Rignell (“Rignell”) in view of U.S. Patent Application No. 2003/0001020 to Kardach (“Kardach”) in further view of U.S. Patent Application No. 2002/0050982 to Ericson (“Ericson”).

(2) Claims 2 and 6-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Rignell in view of Kardach in further view of Ericson and in further view of U.S. Patent No. 7,111,230 to Euchner et al. (“Euchner”).

(3) Claims 12, 13, 14-16, 18, 19, 21, 52, 75, and 76 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Rignell in view of Kardach in further view of Euchner.

(4) Claim 72 was rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Rignell in view of Kardach in further view of Ericson and in further view of U.S. Patent No. 7,050,181 to Korst et al. (“Korst”).

(5) Claims 73 and 74 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Rignell in view of Kardach in further view of Euchner and in further view of Korst.

Accordingly, Appellant hereby requests review of each of these grounds of rejection in the present appeal.

## VII. Argument

- (1) Claims 1, 3-5, and 24 are patentable over *Rignell, Kardach, and Ericson*.

Claim 1 recites:

A method of associating in computer memory (i) a digital electronic version of printed human-discernible content of a printed document comprising a sheet having a machine-readable pattern adapted to enable the position of a digital pattern reading device to be determined and said human-discernible content with (ii) the identity of a sheet upon which the content is printed, the method comprising:

printing the content onto a sheet using a second printer, said sheet comprising a pre-patterned sheet that has been pre-printed by a first printer with said pattern;

*in which said first printer has a higher print resolution than the second printer;*

*transferring a machine-readable identity code between said second printer and said sheet at around the time of printing said content;* and

storing a *correlation between said identity code and said digital electronic version* in computer memory.

(Emphasis added)

In contrast *Rignell, Kardach and Ericson*, in any combination, do not teach or suggest the claimed “method. . . comprising: printing the content onto a sheet using a second printer, said sheet comprising a pre-patterned sheet that has been pre-printed by a first printer with said pattern; in which said first printer has a higher print resolution than the second printer; transferring a machine-readable identity code between said second printer and said sheet at around the time of printing said content; and storing a correlation between said identity code and said digital electronic version in computer memory.” (Claim 1).

First, it should be noted that the final Office Action concedes that “*Rignell* does not teach in which said first print[er] has a higher resolution than the second printer.” (Final Office Action, p. 3). In order to overcome this, the final Office Action attempts to rely on *Ericson*. However, *Ericson* at best teaches that “[t]he user can also in principle print *the*

*position-coding pattern* himself using a printer *having sufficiently high printing resolution.*” (Ericson, para. [0037]) (emphasis added). Therefore, Ericson simply does not teach two printers: one printer having a higher resolution than the other printer. Ericson, at best, only teaches a printer having a certain resolution that is used to print both the position coding pattern and any subsequent content. Ericson does not discuss any specific resolution or a comparison of resolutions between any two printers.

Second, in an attempt to show that Rignell teaches a machine-readable identity code, the final Office Action cites to Rignell at paragraph 50. However, Rignell there teaches that “the result file may also contain, for instance, date, time, ID of the pen, *ID of the product.*” (Rignell, para. [0050]) (emphasis added). It is important to note that Rignell is silent as to what this “ID of the product” is. The Final Office Action then concedes that “Rignell does not teach . . . transferring a machine-readable identity code between said second printer and said sheet at around the time of printing said content.” (Final Office Action, p. 3).

In order to overcome this additional deficiency of Rignell, the final Office Action relies on Kardach. However, Kardach fails to address this shortcoming of Rignell in two respects. The first is that Kardach at best teaches “taking an electronic *application program* . . . and printing them on a piece of paper having a preprinted pattern thereon.” (Kardach, para. [0011]) (emphasis added). Exactly *how* an *application program* is to be printed on a piece of paper is not taught in Kardach.

The second reason Kardach fails is because Kardach does not teach “transferring a machine-readable *identity code* between said second printer and said sheet.” (Claim 1). At best, Kardach teaches that “[t]he pen will recognize the ID pattern and the paper pattern, and will then be able to associate the paper (with its unique pattern) with the *application* that printed information on the paper (via the ID pattern).” (Kardach, para. [0021]) (emphasis

added). Clearly, Kardach is associating an ID pattern with an **application** “such as, for example, PowerPoint, Outlook, Windows, and Word of Microsoft Corporation of Redmond, Wash., or any PC application.” (Kardach, para. [0011]).

Claim 1, however, specifically recites that “a digital electronic **version**” of the printed human-discernable content is associated with an “identity code.” (Claim 1) (emphasis added). This is clearly not taught or suggested by Kardach.

The Supreme Court has addressed the issue of obviousness in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). The Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham* to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Rignell, Kardach and Ericson, did not include the claimed subject matter, particularly a method comprising printing the content onto a sheet using a second printer, said sheet comprising a pre-patterned sheet that has been pre-printed by a first printer with said pattern in which said first printer has a higher print resolution than the second printer.

The differences between the cited prior art and the indicated claims are significant because recitation of claim 1 provides the user with the ability to implement the method on a printing system having a relatively lower resolution than may be necessary to print the pattern on the media and store the correlation of an identity code of a printed document with its specific electronic version. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 1 under 35 U.S.C. § 103 and *Graham*.

(2) Claims 2 and 6-9 are patentable over Rignell, Kardach, Ericson and Euchner.

Claim 2:

Claim 2 recites:

A method according to claim 1 wherein said ***identity code is read*** from said sheet ***by said second printer***.  
(Emphasis added).

In contrast, Rignell, Kardach, Ericson and Euchner, in any combination, do not teach or suggest “[a] method according to claim 1 wherein said identity code is read from said sheet by said second printer.” (Claim 2). Initially, it should be noted that the final Office Action has conceded that “Rignell in view of Kardach further in view of Ericson does not teach wherein said identity code is read from said sheet by said second printer.” (Final Office Action, p. 7).

The final Office Action therefore relies on Euchner in order to overcome the insufficiency of the prior art. (*Id.*). However, Euchner merely teaches that “each page of the digital paper may use a different pattern space and may be scanned as printed.” (Euchner, col. 9, ll. 24-26). Nowhere does Euchner teach that a second printer reads an identity code from the sheet as recited in claim 2. Indeed, Euchner goes on further to teach that “[i]n order to associate a particular sheet of digital paper with the electronic master document, ***a digital pen or other pattern scanner*** is used to identify the paper ***before it is placed in the traditional printer***.” (*Id.* at ll. 31-34) (emphasis added). Clearly, Euchner does not teach that an identity code is read from said sheet by a second printer as recited in claim 2. To be sure, Euchner teaches away from the recitations of claim 2 by requiring the use of “a digital pen or other pattern scanner” instead of a printer in order to scan the sheets. (*Id.*).

Again, the Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham*

to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Rignell, Kardach, Ericson and Euchner, did not include the claimed subject matter, particularly a method according to claim 1 wherein said identity code is read from said sheet by said second printer.

The differences between the cited prior art and the indicated claims are significant because recitation of claim 2 provides the user with the ability to simply place a stack of patterned paper in a printer and have the printer communicate with an instructing personal computer in order to store an association between the location of the content being printed on the printer with the memory location of the recognized region of patter space. This also does not require the user to have to scan each sheet individually before placing it in the printer. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 2 under 35 U.S.C. § 103 and *Graham*.

Claim 6:

Claim 6 recites:

A method according to claim 1 wherein *the second printer* which prints said content onto said pre-patterned sheet *has a pattern reading device*, and wherein said second printer acquires data from said pre-printed pattern on the said sheet that is to be printed with content, in order to enable the identity of pattern on said sheet to be established, thereby enabling said association to be made in computer memory;

said second printer uses data from a digital electronic version of content to print said content onto said pre-patterned sheet; and

wherein said association is made in computer memory between said digital electronic version of said content and said identity of pattern.

(Emphasis added).



In contrast, Rignell, Kardach, Ericson and Euchner, in any combination, do not teach or suggest “[a] method according to claim 1 wherein the second printer which prints said content onto said pre-patterned sheet has a pattern reading device.” (Claim 6). Similar to claim 2, the final Office Action concedes that “Rignell in view of Kardach further in view of Ericson does not teach wherein the second printer which prints said content onto said pre-patterned sheet has a pattern reading device.” (Final Office Action, p. 8).

Again, the final Office Action relies on Euchner in an attempt to overcome this deficiency. (Final Office Action, p. 8). Similar to the arguments presented above in connection with claim 2, Euchner instead teaches “a digital pen or other pattern scanner is used to identify the paper *before it is placed* in the traditional printer.” (Euchner, col. 9, ll. 32-34) (emphasis added).

Again, the Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham* to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Rignell, Kardach, Ericson and Euchner, did not include the claimed subject matter, particularly a method according to claim 1 wherein the second printer which prints said content onto said pre-patterned sheet has a pattern reading device.

The differences between the cited prior art and the indicated claims are significant because recitation of claim 6 provides the user with the ability to simply place a stack of patterned paper in a printer and have the printer communicate with an instructing personal computer in order to store an association between the location of the content being printed on the printer with the memory location of the recognized

region of patter space. This also does not require the user to have to scan each sheet individually before placing it in the printer. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 6 under 35 U.S.C. § 103 and *Graham*.

(3) Claims 12, 13, 14-16, 18, 19, 21, 52, 75, are patentable over *Rignell, Kardach, and Euchner*.

Claim 12:

Claim 12 recites:

A method of associating in computer memory a digital electronic version of printed human discernible content of a printed document with an identity code adapted to identify said document, the method comprising:

- using a plurality of pages of pre-patterned digital paper that have been pre-printed by a first printer with a position-determining pattern, said pattern being adapted to enable a digital pen to acquire information from said pattern to enable the position of said pen on said pattern to be determined;
- printing said content on said digital paper using a second printer;
- using said second printer to convey an identity code to or from the paper; and

in which *said identity code is a user-specific identity code and in which, upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper;*

*associating in computer memory, using said code transferred, at the time of printing said content onto said pre-patterned paper, a digital electronic version of said content with the identity code for the particular sheet of digital paper upon which said content is printed.*

(Emphasis added).

In contrast, *Rignell, Kardach, and Euchner*, in any combination, do not teach or suggest “[a] method of associating in computer memory a digital electronic version of printed human discernible content of a printed document with an identity code adapted to identify said document . . . in which said identity code is a user-specific identity code and in which,

upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper; associating in computer memory, using said code transferred, at the time of printing said content onto said pre-patterned paper, a digital electronic version of said content with the identity code for the particular sheet of digital paper upon which said content is printed.”

(Claim 12).

Initially, the final Office Action concedes that “Rignell does not teach . . . in which said identity code is a user-specific identity code and in which, upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper.” (Final Office Action, p. 12). Therefore, the final Office Action relies on Euchner in an attempt to overcome this deficiency. (*Id.*)

It should be noted also that the final Office Action goes on to state that “[t]here is no limitation in the claim that [states] that *information about the user* is printed with the content of the page, only that the identity code which identifies the user is printed with the content.” (*Id.*) (emphasis added). Applicant respectfully disagrees by pointing to claim 12 which reads in part, “upon recognition of said user-specific identity code, said *second printer is caused to print user-specific content* along with said human discernible content onto said pre-printed digital paper.” (Claim 12) (emphasis added). Additionally, the present application discloses that “[t]he user-specific content can be the user's personal details that are to be pre-filled into the form.” (Appellant’s Specification, p. 7, ll. 27-28). Therefore, contrary to what the final Office Action asserts, claim 12 does recite that information about the user is printed with the content of the page.

This is important because the final Office Action relies on Euchner where it teaches that “each copy of the document is printed using different unique patterns and generic digital pens are used. Since each user received a uniquely identifiable copy, the source of annotations may be determined.” (Euchner, col. 5, ll. 41-55). Nowhere in Euchner, however, is it taught or suggested that “***upon*** recognition of said user-specific identity code, said ***second printer is caused to print user-specific content.***” (Claim 12) (emphasis added).

In contrast, claim 12 recites “in which said identity code is a user-specific identity code and in which, upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper.” (*Id.*). This is clearly not taught or suggested in the prior art.

Again, the Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham* to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Rignell, Kardach, and Euchner, did not include the claimed subject matter, particularly a method of associating in computer memory a digital electronic version of printed human discernible content of a printed document with an identity code adapted to identify said document in which said identity code is a user-specific identity code and in which, upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper.

The differences between the cited prior art and the indicated claims are significant because recitation of claim 12 provides a user with the ability to more easily produce pre-

filled documents containing both user specific content as well as human discernable content at one time. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 12 under 35 U.S.C. § 103 and *Graham*.

Claim 52:

Claim 52 recites:

A method of combining pen strokes made with a digital pen upon a digital sheet having pen position-determining pattern printed upon it and human-discernible content printed upon it comprising:

printing said sheet with said pattern in a pre-patterning operation with a first printer to create a pre-patterned sheet;

subsequently printing said content onto said pre-patterned sheet using a second printer to create a content-printed digital sheet;

transferring an identity code between said second printer and said sheet to enable the identity of said sheet to be established in a subsequent pen-on-sheet writing operation, the transfer of said identity code occurring in the same time frame as printing said content onto said sheet;

in which ***said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper;***

associating in computer memory a link between said identity code and an electronic version of said content that was printed on said sheet;

using a digital pen to make pen strokes on said content-printed sheet;

conveying pen-acquired pen-position data, relating to the position of said pen in said pattern to a processor;

using the digital pen to acquire said identity code from said content-printed sheet;

the processor using the pen-acquired identity code, the pen acquired pen-position data, and the link between said identity code and said electronic version of said content to combine said pen strokes with said content.

(Emphasis added).

In contrast, Rignell, Kardach, and Euchner, in any combination, do not teach or suggest “[a] method of combining pen strokes made with a digital pen upon a digital sheet having pen position-determining pattern printed upon it and human-discernible content

printed upon it . . . in which said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper.” (Claim 52). Initially, the final Office Action concedes that “Rignell does not teach . . . in which said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper.” (Final Office Action, p. 19). Therefore, the final Office Action relies on Euchner in an attempt to overcome this deficiency. (Id.)

It should be noted also that the final Office Action, again, states that “[t]here is no limitation in the claim that [states] that *information about the user* is printed with the content of the page, only that the identity code which identifies the user is printed with the content.” (Id.) (emphasis added). Applicant respectfully disagrees by pointing to claim 52 which reads, in part, “upon recognition of said identity code, said *second printer is caused to print user-specific content*.” (Claim 52) (emphasis added). Additionally, the present application discloses that “[t]he user-specific content can be the user's personal details that are to be pre-filled into the form.” (Appellant’s Specification, p. 7, ll. 27-28). Therefore, contrary to what the final Office Action asserts, claim 52 does recite that information about the user is printed with the content of the page.

Again, this is important because the final Office Action relies on Euchner where it teaches that “each copy of the document is printed using different unique patterns and generic digital pens are used.” (Euchner, col. 5, ll. 41-55). Nowhere in Euchner, however, is it taught

or suggested that “upon recognition of said identity code, said second printer is caused to print user-specific content.” (Claim 52) (emphasis added).

In contrast, claim 52 recites “in which said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper.” (*Id.*). This is clearly not taught or suggested in the prior art.

Again, the Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham* to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Rignell, Kardach, and Euchner, did not include the claimed subject matter, particularly a method of combining pen strokes made with a digital pen upon a digital sheet having pen position-determining pattern printed upon it and human-discernible content printed upon it in which said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper.

The differences between the cited prior art and the indicated claims are significant because recitation of claim 52 provides a user with the ability to more easily produce pre-filled documents containing both user specific content as well as human discernable content at one time. Thus, the claimed subject matter provides features and advantages not known or

available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 12 under 35 U.S.C. § 103 and Graham.

- (4) Claim 72 is patentable over Rignell, Kardach, Ericson and Korst.

The rejection of claim 72 should not be sustained for at least the same reasons given above in favor of the patentability of independent claim 1.

- (5) Claims 73 and 74 are patentable over Rignell, Kardach, Euchner and Korst.

The rejection of claims 73 and 74 should not be sustained for at least the same reasons given above in favor of the patentability of independent claims 1 and 12 respectively.



In view of the foregoing, it is submitted that the final rejection of the pending claims is improper and should not be sustained. Therefore, a reversal of the Rejection of March 22, 2010 is respectfully requested.

Respectfully submitted,

DATE: July 19, 2010

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### **VIII. CLAIMS APPENDIX**

1. (previously presented) A method of associating in computer memory (i) a digital electronic version of printed human-discernible content of a printed document comprising a sheet having a machine-readable pattern adapted to enable the position of a digital pattern reading device to be determined and said human-discernible content with (ii) the identity of a sheet upon which the content is printed, the method comprising:

printing the content onto a sheet using a second printer, said sheet comprising a pre-patterned sheet that has been pre-printed by a first printer with said pattern;

in which said first printer has a higher print resolution than the second printer;

transferring a machine-readable identity code between said second printer and said sheet at around the time of printing said content; and

storing a correlation between said identity code and said digital electronic version in computer memory.

2. (previously presented) A method according to claim 1 wherein said identity code is read from said sheet by said second printer.

3. (previously presented) A method according to claim 1 wherein said identity code is printed on said sheet by said second printer.

4. (previously presented) A method according to claim 3 wherein a plurality of sheets have the same pre-printed pattern as provided by the first printer and are given

individual identities by using said second printer to apply different machine-readable identity codes to each of them at around the time of printing each sheet.

5. (original) A method according to claim 1 wherein said machine-readable identity code comprises at least one code from the group:

- (i) a pattern of dots;
- (ii) a pattern of lines;
- (iii) a pattern of printed objects whose positions and/or shapes code for an identity;
- (iv) a position determining pattern;
- (v) a bar code.

6. (previously presented) A method according to claim 1 wherein the second printer which prints said content onto said pre-patterned sheet has a pattern reading device, and wherein said second printer acquires data from said pre-printed pattern on the said sheet that is to be printed with content, in order to enable the identity of pattern on said sheet to be established, thereby enabling said association to be made in computer memory;

said second printer uses data from a digital electronic version of content to print said content onto said pre-patterned sheet; and

wherein said association is made in computer memory between said digital electronic version of said content and said identity of pattern.

7. (previously presented) A method according to claim 6 wherein said pre-printed pattern is associated in computer memory with specific digital electronic content and wherein upon recognition of said pattern using data acquired by said pattern reading device of said

second printer, said specific digital electronic content is caused to be printed onto said pre-patterned sheet as human-discernible content.

8. (previously presented) A method according to claim 7 wherein different users have different pattern associated with them and wherein upon recognition of their pattern from data from said second printer's pattern reading device said content printer is caused to print user-specific content onto said sheet.

9. (original) A method according to claim 2 wherein said human-discernible content comprises document-type content and user-specific content, wherein one from the group:

(i) document-specific content; and

(ii) user-specific content is selected by a user, and the other from said group is obtained from a predetermined correlation between said identity code that has been read by said printer and a digital electronic version said content.

10 - 11. (canceled)

12. (previously presented) A method of associating in computer memory a digital electronic version of printed human discernible content of a printed document with an identity code adapted to identify said document, the method comprising:

using a plurality of pages of pre-patterned digital paper that have been pre-printed by a first printer with a position-determining pattern, said pattern being adapted to enable a digital pen to acquire information from said pattern to enable the position of said pen on said pattern to be determined;

printing said content on said digital paper using a second printer;

using said second printer to convey an identity code to or from the paper; and

in which said identity code is a user-specific identity code and in which, upon recognition of said user-specific identity code, said second printer is caused to print user-specific content along with said human discernible content onto said pre-printed digital paper;

associating in computer memory, using said code transferred, at the time of printing said content onto said pre-patterned paper, a digital electronic version of said content with the identity code for the particular sheet of digital paper upon which said content is printed.

13. (original) A method as claimed in claim 12 wherein an identity code adapted to distinguish a specific sheet of pre-pattern digital paper is printed onto said specific sheet as part of an operation of printing said content onto said specific sheet, said identity code being readable by a digital pen and being capable of being used to distinguish data acquired by a digital pen from said specific sheet from data acquired by said pen from other sheets of pre-patterned paper having the same position-determining pattern on them as does said specific sheet.

14. (previously presented) A method according to claim 12 wherein an identity code adapted to distinguish a specific sheet of pre-patterned digital pattern is printed on said specific sheet in an operation prior to printing said content onto said specific sheet, and wherein a second printer which prints said content onto said pre-patterned paper has an identity code reading device, said second printer being capable of acquiring data from said identity code, said identity code being capable of being used to distinguish data acquired by a

digital pen from said specific sheet from data acquired by said pen from other sheets of pre-patterned paper having the same position-determining pattern on them as does said specific sheet, to enable said association to be made between said digital electronic version of said content and said identity code.

15. (original) A method according to claim 12 wherein a plurality of different identity codes are printed on a respective plurality of pre-patterned sheets each having the same pre-printed position-determining pattern, said identity codes enabling a digital pen to acquire sheet identity data to enable data acquired from each sheet to be distinguished from data acquired from other sheets.

16. (previously presented) A method according to claim 14 wherein said identity code is associated in computer memory with specific digital electronic content and wherein upon recognition of said identity code using data acquired by said identity code reading device of said second printer, said specific digital electronic content is caused to be printed onto said pre-patterned sheet as human discernible content.

17. (canceled).

18. (original) A method according to claim 12 wherein said identity code is printed in an area of said pre-patterned paper which is from the group:

- (i) free of pattern;
- (ii) substantially free of pattern.

19. (original) A method according to claim 15 wherein an area of said sheets from the group:

- (i) all of a surface of each of the sheets;
- (ii) substantially all of a surface of each of the sheets;
- (iii) at least half of the surface area of each of the sheets;
- (iv) at least a tenth of the surface area of each of the sheets;

are pre-printed with pattern.

20. (canceled)

21. (previously presented) A method according to claim 12 wherein said second printer is (i) not capable of printing said pattern satisfactorily; or (ii) configured not to be capable of printing said pattern satisfactorily.

22-23. (canceled)

24. (previously presented) A method according to claim 1, wherein pre-printed digital paper is taken from said first printer and put into a plurality of second printers.

25 – 51. (Canceled)

52. (previously presented) A method of combining pen strokes made with a digital pen upon a digital sheet having pen position-determining pattern printed upon it and human-discernible content printed upon it comprising:

printing said sheet with said pattern in a pre-patterning operation with a first printer to create a pre-patterned sheet;

subsequently printing said content onto said pre-patterned sheet using a second printer to create a content-printed digital sheet;

transferring an identity code between said second printer and said sheet to enable the identity of said sheet to be established in a subsequent pen-on-sheet writing operation, the transfer of said identity code occurring in the same time frame as printing said content onto said sheet;

in which said identity code corresponds to a predetermined set of human-discernible content and in which, upon recognition of said identity code, said second printer is caused to print user-specific content along with said predetermined set of human-discernible content onto said pre-printed digital paper;

associating in computer memory a link between said identity code and an electronic version of said content that was printed on said sheet;

using a digital pen to make pen strokes on said content-printed sheet;

conveying pen-acquired pen-position data, relating to the position of said pen in said pattern to a processor;

using the digital pen to acquire said identity code from said content-printed sheet;

the processor using the pen-acquired identity code, the pen acquired pen-position data, and the link between said identity code and said electronic version of said content to combine said pen strokes with said content.

53 - 71. (canceled)



72. (previously presented) The method according to claim 1, wherein the second printer is an existing legacy printer.
73. (previously presented) The method as claimed in claim 12, wherein the second printer is an existing legacy printer.
74. (previously presented) The method as claimed in claim 52, wherein the second printer is an existing legacy printer.
75. (previously presented) The method as claimed in claim 12, in which said user-specific content is accessed by said second printer from a memory within said second printer .
76. (previously presented) The method as claimed in claim 52, in which said user-specific content is accessed by said second printer from a print command sent to said second printer.

**IX. Evidence Appendix**

None

**X. Related Proceedings Appendix**

None

**XI. Certificate of Service**

None